

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A method for the transmission and reproduction of image data, in which said image data are transmitted from a sending device to a plurality of at least one communication terminals and reproduced by image reproducing means, the current viewing direction of the communication terminal's user being determined, said method comprising the steps of:

transmitting broadcasting first image data with a lower resolution over a first transmission channel to a plurality of users each using one of said communication terminals,

sending said current viewing direction of one of the users over a reverse channel to said sending device,

transmitting, specifically to the one of the users, second image data corresponding to the image areas viewed currently, or in future, by said one of the at least one users, said transmitting second image data being transmitted with a higher resolution over a second transmission channel, and

superimposing and simultaneously reproducing said first and second image data in said the communication terminal used by the one of the users.

2. (previously presented) The method of claim 55, wherein said image data are projected by said image reproducing means onto the retina of said user.

3. (original) The method of claim 2, wherein said viewed image area is the image area that is to be projected onto the fovea of said retina.

4. (previously presented) The method of claim 55, wherein the size of said viewed image area can be adjusted.

5. (previously presented) The method of claim 55, wherein the size of said viewed image area can be adapted to the bandwidth of said second transmission channel.

6. (previously presented) The method of claim 55, wherein said first image data are transmitted in broadcast mode over said first transmission channel.

7. (original) The method of claim 6, wherein said first image data are transmitted as DVB data.

8. (previously presented) The method of claim 55, wherein said first image data are copied and commercially distributed on magnetic and/or optical data carriers.

9. (previously presented) The method of claim 55, wherein sound data are transmitted over the first transmission channel simultaneously with said first image data and reproduced by said communication terminal.

10. (previously presented) The method of claim 55, wherein said second transmission channel is bi-directional and wherein said reverse channel is the reverse channel of this said bi-directional second transmission channel.

11. (original) The method of claim 10, wherein said second transmission channel comprises a publicly connected telephone network.

12. (original) The method of claim 11, wherein said telephone network is a mobile radio network.

13. (previously presented) The method of claim 55, wherein said second transmission channel comprises a TCP-IP network.

14. (previously presented) The method of claim 55, wherein user identification data are sent over said reverse channel to a billing center and are used by this billing center for billing the reproduced images.

15. (previously presented) The method of claim 55, wherein additional multimedia data requested by said at least one user are sent over said second transmission channel.

16. (original) The method of claim 15, wherein said additional multimedia data correspond to a hyperlink selected with the eye in the reproduced image.

17. (previously presented) The method of claim 55, wherein said viewing direction is determined in advance.

18. (original) The method of claim 17, wherein said viewing direction is predetermined in consideration of the movement of the viewing point.

19. (original) The method of claim 17, wherein said viewing direction is predetermined in consideration of the movement of the viewed object on said image data.

20. (original) The method of claim 17, wherein said viewing direction is predetermined in consideration of marked areas in the image.

Claim 21 (canceled).

22. (previously presented) The communication terminal of claim 58, wherein said image data are projected by said image reproducing means onto the retina of said user.

23. (original) The communication terminal of claim 22, wherein said image reproducing means are a Virtual Retinal

Display that projects image signals corresponding to said image data onto the retina of said user.

24. (previously presented) The communication terminal of claim 58, wherein said image reproducing means are integrated in a different unit from the receiving part of said communication terminal.

25. (previously presented) The communication terminal of claim 24, wherein said components of said terminal are connected over a contactless interface at close range.

26. (original) The communication terminal of claim 22, wherein said currently viewed image area corresponds to the image area that is to be projected onto the fovea of said retina.

27. (original) The communication terminal of claim 26, wherein the size of said currently viewed image area can be adjusted.

28. (previously presented) The communication terminal of claim 58, further comprising a first receiver for image data transmitted in broadcast mode over said first transmission channel.

29. (original) The communication terminal of claim 28, wherein said first receiver is a radio receiver.

30. (original) The communication terminal of claim 29, wherein said first receiver is a DVB radio receiver.

31. (original) The communication terminal of claim 28, wherein said first receiver includes a data carrier reader.

32. (previously presented) The communication terminal of one of the claims 22 to 31 and 58, further comprising a second receiver for image data transmitted over said second transmission channel.

33. (original) The communication terminal of claim 32, wherein said second receiver is a transceiver that can send said viewing direction over said reverse channel.

34. (original) The communication terminal of claim 33, wherein said second receiver is a mobile radio terminal.

35. (previously presented) The communication terminal of claim 58, wherein it sends said viewing direction in real-time over said second transmission channel to the sending device.

36. (previously presented) The communication terminal of claim 58, wherein it includes a cache memory for said second image data.

37. (original) The communication terminal of claim 36, wherein said cache memory contains image data that correspond to a larger area than the currently viewed image area and

wherein the image data that are extracted from said cache memory depend on the current viewing direction.

38. (original) The communication terminal of claim 36, wherein it further includes a first cache memory for said first image data, and wherein the data from said first and from said second cache memories are extracted synchronically.

Claim 39 (canceled).

40. (previously presented) The device of claim 61, wherein said viewed image area is the image area that is to be projected onto the fovea of said retina.

41. (original) The device of claim 40, wherein the size of said viewed image area can be adjusted.

42. (original) The device of claim 41, wherein the size of said viewed image area can be adapted to the bandwidth of said second transmission channel.

43. (previously presented) The device of claim 61, wherein said first image data are transmitted in broadcast mode over said first transmission channel.

44. (previously presented) The device of claim 61, wherein sound data are transmitted over said first transmission channel simultaneously with said first image data.

45. (previously presented) The device of claim 61, wherein said second transmission channel is bi-directional and wherein said reverse channel is the reverse channel of this second transmission channel.

46. (original) The device of claim 45, wherein said second transmission channel includes a publicly connected telephone network.

47. (original) The device of claim 46, wherein said-telephone network is a mobile radio network.

48. (previously presented) The device of claim 61, wherein a billing center is provided in order to bill to the user the reproduction of the images.

49. (previously presented) The device of claim 61, wherein it includes a segmentation module in order to determine the image areas that are to be forwarded to said second encoding module.

50. (previously presented) The device of claim 61, wherein said second encoding module encodes all at once image data that correspond to at least one image area viewed simultaneously by a plurality of users currently or in future and sends them to said plurality of users.

51. (previously presented) The device of claim 61, wherein said viewing direction is determined in advance.

52. (previously presented) The device of claim 61, wherein said viewing direction is predetermined in consideration of the movement of the viewing point.

53. (previously presented) The device of claims 61, wherein said viewing direction is predetermined in consideration of the movement of the viewed object on said image data.

54. (previously presented) The device of claim 61, wherein said viewing direction is predetermined in consideration of marked areas in the image.

55. (currently amended) A method for the transmission of image data from a sending device to a communication terminal, comprising the steps of:

transmitting broadcasting first image data over a first transmission channel to a plurality of communication terminals;

retrieving a user viewing direction of a specific user of one of said communication terminals; and

transmitting second image data over a second transmission channel to the communication terminal of the specific user, said second image data having a higher resolution than said first image data, wherein said specific user viewing direction is utilized such that said second image data corresponds to a viewed image area currently being

viewed by the user or predicted of being viewed by the user in the future.

56. (currently amended) A method for the reproduction of image data by image reproducing means, comprising the steps of:

determining a current viewing direction of a specific user of said image reproducing means;

sending said current viewing direction over a reverse channel;

receiving first image data broadcast over a first transmission channel to a plurality of users including the specific user;

receiving second image data over a second transmission channel, said second image data having a higher resolution than said first image data, wherein said current viewing direction is utilized such that said second image data corresponds to a viewed image area currently being viewed by [[a]] the specific user or predicted of being viewed by the specific user in the future; and

reproducing an image corresponding to said first and said second image data.

57. (previously presented) The method of claim 56, wherein said image is reproduced by superimposing said first image data and said second image data to form a combined image

having both low and high resolution portions.

58. (currently amended) A communication terminal comprising:

means for determining a current viewing direction of a specific user of said communication terminal;

means for sending said current viewing direction over a reverse channel;

means for receiving first image data over a first transmission channel, said first image data being broadcast to a plurality of users including the specific user;

means for receiving second image data over a second transmission channel, said second image data having a higher resolution than said first image data, wherein said viewing direction is utilized such that said second image data corresponds to a viewed image area currently being viewed by the specific user or predicted of being viewed by the specific user in the future; and

image reproducing means for superimposing and simultaneously reproducing said first and said second image data for display to the specific user.

59. (previously presented) The communication terminal of claim 58, wherein said second image data corresponds to a viewed image area predicted of being viewed by the user in the future.

60. (previously presented) The communication terminal of claim 59, wherein said image reproducing means produces an image having portions at both said low and said higher resolutions.

61. (currently amended) A sending device comprising:
a receiver for receiving data comprising the viewing direction of a specific user transmitted over a reverse channel;
a first encoding module for compressing a first image data, and for sending broadcasting said first image data over a first transmission channel in broadcast mode to a plurality of users including the specific user;
a second encoding module for compressing second image data in a resolution higher than said first image data, said second image data corresponding to a viewed image area currently being viewed by the specific user or predicted of being viewed by the user in the future, said second encoding module also for sending said second image data over a second transmission channel.

62. (currently amended) A communication system comprising:

a communication terminal including:

means for determining a current viewing direction of a specific user of said communication terminal;

a reverse transmitter for sending said current viewing direction over a reverse channel;

a first receiver for receiving first image data broadcast over a first transmission channel;

a second receiver for receiving second image data over a second transmission channel; and

image reproducing means for superimposing and simultaneously reproducing said first and said second image data to produce an image having portions at both said lower and said higher resolutions for display to the specific user;

and a sending device including:

means for utilizing said current viewing direction for determining a currently viewed area that is currently being viewed by the specific user;

means for utilizing said current viewing direction for predicting a future viewing area predicted to be viewed by the specific user in the future;

a receiver for receiving data comprising the viewing direction of [[a]] the specific user transmitted over [[a]] the reverse channel;

a first encoding module for compressing said first image data at the lower resolution;

a first transmitter for sending broadcasting said first image data over said first transmission channel in broadcast mode to a plurality of users including the specific user; and

a second encoding module for compressing said second image data in [[a]] said higher resolution that is higher than the resolution of said first image data, said second image data corresponding to one or both of said currently viewed area and said future viewing area; and

a second transmitter for sending said second image data over said second transmission channel to the specific user.

63. (new) A method for the transmission of image data from a sending device to a communication terminal, comprising the steps of:

providing first image data to the communication terminal;

determining a current viewing direction of a user of the communication terminal;

determining a future viewing area of the user utilizing
said current viewing direction; and

providing second image data to the communication
terminal, said second image data having a higher
resolution than said first image data, wherein

the future viewing area of the user is utilized such that
said second image data corresponds to an image area
of the communication terminal predicted as likely
being viewed by the user in the future.